



**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Part 20**

**[WT Docket No. 10-4; FCC 18-35]**

**Improvement of Wireless Coverage Through the Use of Signal Boosters**

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** In this document, the Federal Communications Commission proposes additional steps to enhance the usefulness of signal boosters in improving access to wireless service while continuing to guard against unacceptable interference to the operations of wireless providers. The proposals are intended to extend additional benefits to users of both Provider-Specific and Wideband Consumer Signal Boosters. Thus, the Commission proposes to expand the service bands on which all Consumer Signal Boosters may operate, develop consumer advisory requirements suitable for any embedded Consumer Signal Boosters (whether Provider-Specific or Wideband), and facilitate enterprise use of both Provider-Specific Consumer Signal Boosters and Wideband Consumer Signal Boosters.

**DATES:** Interested parties may file comments on or before **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**, and reply comments on or before **[INSERT DATE 60 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may submit comments, identified by WT Docket No. 10-4, by any of the following methods:

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS): <http://fjallfoss.fcc.gov/ecfs2/>. See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing. Generally, if more than one docket or rulemaking number appears in the caption of this

proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

- Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
  - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
  - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
  - U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

**FOR FURTHER INFORMATION CONTACT:** Amanda Huetinck at [Amanda.huetinck@fcc.gov](mailto:Amanda.huetinck@fcc.gov), of the Wireless Telecommunications Bureau, Mobility Division, (202) 418-7090. For additional information concerning the PRA information collection requirements contained in this document, contact Cathy Williams at (202) 418-2918 or send an email to [PRA@fcc.gov](mailto:PRA@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Second Further Notice of Proposed Rulemaking (Second Further Notice) in WT Docket No. 10-4, FCC 18-35, released on March 23, 2018. The complete text of the Second Further Notice, including all Appendices, is available

for inspection and copying during normal business hours in the FCC Reference Center, 445 12th Street SW, Room CY-A157, Washington, DC 20554, or by downloading the text from the Commission's website at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-18-35A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-18-35A1.pdf).

Alternative formats are available for people with disabilities (Braille, large print, electronic files, audio format), by sending an e-mail to [FCC504@fcc.gov](mailto:FCC504@fcc.gov) or calling the Consumer and Government Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

## **I. SECOND FURTHER NOTICE**

### **A. Additional Spectrum Bands**

1. In the Report and Order, adopted on February 20, 2013 (WT Docket No. 10-4) (Report and Order), the Commission authorized the use of Consumer Signal Boosters in the wireless radio service spectrum bands that were being used for the provision of commercial wireless services at the time: Cellular (824-849 MHz and 869-894 MHz), Broadband PCS (1850-1915 MHz and 1930-1995 MHz), AWS-1 (1710-1755 MHz and 2110-2155 MHz), 700 MHz Lower A through E (698-746 MHz) and Upper C (746-757 MHz and 776-787 MHz) Blocks, and 800 MHz Enhanced Specialized Mobile Radio (ESMR) (817-824 MHz and 862-869 MHz). Recognizing that “subscriber-based services may be offered in additional bands in the future,” the Commission also stated that, “[a]s consumer demand for signal boosters in these bands arises,” it would seek comment on “how best to expand our signal booster framework to accommodate such additional bands.”

2. To ensure that Consumer Signal Boosters continue to meet the needs of American telecommunications users, no matter what type of mobile device they use or on what band(s) that device operates, the Commission seeks comment on whether and how the Commission can expand the number of spectrum bands for which Consumer Signal Boosters are authorized. The Commission specifically seeks comment on whether to permit the operation of Consumer Signal Boosters in certain additional wireless radio service spectrum bands and how its technical rules would need to be amended to accommodate the additional bands.

3. In determining which, if any, new bands are appropriate for use with Consumer Signal Boosters, the Commission considers: 1) whether the band is used to provide services to consumers or

other non-licensee users such as public safety responders (assuming they are using commercial spectrum rather than spectrum specifically designated for public safety); 2) whether a meaningful number of the licensees in the band will consent to Consumer Signal Booster operation; 3) the impact of other technologies and operations both within the band and in adjacent bands and whether Consumer Signal Booster operation would harm other users within the band or in adjacent bands (and vice versa); and 4) whether the current technical rules for signal boosters must be adjusted to accommodate any such new service bands.

4. With this criteria in mind, the Commission specifically seeks comment on whether it should authorize the operation of Consumer Signal Boosters in the 600 MHz (617-652 MHz and 663-698 MHz), WCS (2305-2320 MHz and 2345-2360 MHz), and BRS/EBS (2495-2690 MHz) bands. Commenters should address how each consideration identified above weighs for or against including any of the proposed bands in its Consumer Signal Booster rules. Are there any other considerations that the Commission should take into account in determining whether new bands are appropriate for use with Consumer Signal Boosters? Are there other bands it should consider adding to its Consumer Signal Booster rules? To the extent that commenters support adding other bands to its Consumer Signal Booster rules, they should address the above listed considerations, and any others that commenters demonstrate are relevant, in relation to those specific band(s) as well.

5. Further, are there costs associated with adding additional spectrum bands to the signal booster regime? What would be the benefits, quantifiable and otherwise, of permitting operation of Consumer Spectrum Boosters on additional bands? Are there any changes the Commission would need to make to its Consumer Signal Booster requirements and technical specifications to accommodate any additional bands that may be added to the rules? How can it balance the risk of releasing into the market Consumer Signal Boosters with the ability to operate on bands for which not all licensees have consented with the benefit to consumers of using the devices on the networks for which there is consent? Finally, the Commission also urges commenters to provide suggestions for other ways to expand the use of safe and reliable Consumer Signal Boosters.

## **B. Embedded Consumer Signal Boosters**

6. Despite the success of the Consumer Signal Booster regulatory regime, it appears that businesses that wish to embed Consumer Signal Boosters within vehicles have been stymied by section 20.21(f)(1)'s requirement that advisories be placed on the outside packaging of the device and on a label affixed to the device. Because these Consumer Signal Boosters are embedded within a vehicle, and the consumer neither has access to nor sees the device or its packaging, these businesses, as a practical matter, are unable to comply with section 20.21(f)(1).

7. In light of the evolving use of Consumer Signal Boosters and the Commission's desire to encourage technological innovation, the Commission proposes to amend section 20.21(f)(1) for embedded Consumer Signal Boosters to provide alternative advisory language to that now found in section 20.21(f)(1)(iv)(A)(I) as well as an alternative to providing the advisory on the device and its packaging, as required by section 20.21(f)(1)(iii)-(iv). The Commission seek to strike a balance between providing flexibility in the Consumer Signal Booster marketplace and retaining the protections offered by the labeling requirement.

8. To achieve this goal, the Commission proposes that in lieu of placing the required advisory on the device and its packaging, vehicle manufacturers, distributors, and retailers of embedded Consumer Signal Boosters instead be required to provide an alternative advisory to consumers in any materials provided at vehicle delivery, as well as to consumers when they register their vehicle with the vehicle manufacturer. The Commission emphasizes that these manufacturers, distributors, and retailers would remain responsible for ensuring that the alternative advisory is provided in any on-line, point-of-sale marketing materials and in any print or on-line owner's manual, as required by section 20.21(f)(1)(i)-(ii).

9. Under the proposal, the alternative advisory would provide all the same warnings to consumers, including that they must register the embedded signal booster with and receive the consent of the appropriate wireless provider(s), and it additionally would include instructions for the consumer on how to disable the device for the specific vehicle. To provide maximum flexibility to manufacturers, distributors, and retailers of vehicles with embedded signal boosters, the Commission proposes to permit them both to craft their own processes for their customers to disable the device and to insert a description of that process into the advisory but would expect that the chosen mode be one that the average consumer

easily can undertake.

10. The Commission seeks comment on the above approach and asks commenters to provide information on the costs of complying with such a requirement. Do the benefits of providing an alternative delivery method for the advisory language for embedded Consumer Signal Boosters justify the costs that would be involved? Is the alternative advisory language sufficient to provide adequate notice to consumers? Is the method of delivery—via materials at vehicle delivery and in response to consumer registration of their vehicle with the vehicle manufacturer—a sufficient means of ensuring that consumers receive the advisory? Is this approach the best way the Commission can reduce the burden on businesses that wish to embed signal boosters in vehicles while ensuring consumers receive all necessary information? Is there a better way that the Commission can achieve this goal? If so, what is that approach and why is it superior? Commenters should discuss the costs and benefits of any proposals.

11. In addition, how can the Commission address the situation where a vehicle owner who has complied with all obligations associated with the embedded Consumer Signal Booster in his vehicle sells the vehicle to a third party in a private transaction? Would a new signal booster registration be required for this new user? How can the Commission ensure that the new owner will satisfy the requirements for signal booster operation? What would be the responsibilities of a manufacturer, distributor, and/or retailer that has complied with all of its associated obligations for the original sale in such a scenario? Are there any other rules that the Commission would need to revise to achieve its goal of balancing the limitations faced in connection with providing sufficient information about operation in connection with embedded signal boosters with ensuring that the owner of the vehicle meets all the applicable obligations? Are there other types of embedded uses that the Commission should consider? If so, what other considerations are there? Finally, are there any other considerations regarding embedded Consumer Signal Boosters for which the Commission has not accounted and should?

12. The Commission also seeks comment on how to treat waivers of section 21.20(f)(1) that it has granted to several companies for this purpose (WT Docket No. 10-4) (Labeling Waivers) following any rule change it adopts based upon the record compiled in response to the Second Further Notice. The Commission recognizes that its proposed rules differ from the waiver conditions, and, if the rules are

adopted, the manufacturers party to the Labeling Waivers would need to alter their practices as a result. The Commission seeks comment on how it should handle the transition from the requirements of the Labeling Waivers to those of the proposed rules. How can the Commission best balance the importance of timely compliance with the rule changes with the realities of their business? For example, should it require compliance by the production year following the rules' adoption so manufacturers are not forced to alter their manufacturing parameters mid-production?

### **C. Enterprise Use**

13. The rules adopted in the Report and Order were designed specifically to benefit the general consumer, and they have worked well to that end. In the associated Second Report and Order, released March 23, 2018 (WT Docket No. 10-4) (Second Report and Order), the Commission provided flexibility for enterprise (i.e., any non-individual, such as a small business, public safety entity, school, hospital, or governmental organization) and individual subscribers of a wireless provider to operate a Provider-Specific Consumer Signal Booster for non-personal use on that provider's spectrum. In the Second Further Notice, the Commission considers whether and how to expand that flexibility to permit different types of enterprise entities to take advantage of the benefits of both Provider-Specific and Wideband Consumer Signal Boosters, while continuing to ensure that all signal boosters function safely on those networks and without causing harmful interference. Specifically, the Commission examines whether and how to enable enterprises (and individuals) to operate either type of Consumer Signal Booster—Provider-Specific or Wideband—on a provider's spectrum without subscribing to the provider's service. The Commission generally seeks comment on whether it should expand access to Consumer Signal Boosters in this way.

14. The Commission observes that, to effect such a change and achieve the related public interest benefits, it would need to amend its Consumer Signal Booster rules both to: (1) eliminate the personal use restriction on Wideband Consumer Signal Boosters, and (2) prescribe a method for non-subscribers to register a Consumer Signal Booster (whether Provider-Specific or Wideband) with and receive the consent of all relevant wireless providers.

## **1. Wideband Consumer Signal Booster Personal Use Restriction**

15. The personal use restriction guards against unauthorized operation of a signal booster on a wireless provider's network, while also providing a streamlined consent and registration process for consumers. This risk of unauthorized operation is present for Wideband Consumer Signal Boosters because they can operate on spectrum licensed to multiple wireless providers. While the personal use restriction was devised to stem this risk while providing convenience to consumers, it also effectively prevents enterprise use of Wideband Consumer Signal Boosters, thereby denying a crucial tool for improving wireless service access to a range of entities—including businesses of all sizes, public safety entities (using commercial spectrum), educational institutions, and others.

16. On December 21, 2016, Wilson Electronics, LLC, filed a Petition for Further Rulemaking asking the Commission to eliminate the personal use restriction on the operation of Wideband Consumer Signal Boosters and adopt a multi-provider registration requirement for Wideband Consumer Signal Boosters (WT Docket No. 10-4). On March 3, 2017, the Wireless Telecommunications Bureau sought comment on the Wilson Petition (WT Docket No. 10-4) (Wilson Public Notice). Commenters responding to the Wilson Public Notice almost uniformly supported elimination of the personal use restriction for both types of boosters. They argued that Consumer Signal Boosters offer enterprises a cost-effective way to boost signal coverage for employees and customers, that expanding access to these devices will promote public safety, and that the NPS has negated any potential interference concerns.

17. Based upon the success of the Consumer Signal Booster rules thus far and the record before it, the Commission proposes to eliminate the personal use restriction on Wideband Consumer Signal Boosters and requests comment on this proposal. What are the potential benefits of eliminating the personal use restriction on Wideband Consumer Signal Boosters? Are there quantifiable economic benefits associated with this proposal? Would removal of this restriction on Wideband Consumer Signal Boosters increase the likelihood of harmful interference to wireless providers' networks? Are there, as one commenter claims, different and possibly more extensive technical and performance issues? Are there other possible costs associated with the possible removal of the personal use restriction on Wideband Consumer Signal Boosters? How might any costs or adverse effects balance against any



benefits resulting from this proposed rule change? The Commission requests that commenters provide as much documentation and detail as possible in their comments on this proposal so that it can fairly evaluate the issues.

## **2. Subscriber Relationship**

18. Under the current rules, operators must be subscribers of the wireless provider on whose spectrum they use a Consumer Signal Booster and may register only with said provider. To use a Wideband Consumer Signal Booster for multiple providers under its current rules, a subscriber of each provider must register that same device with each respective provider.

19. Accordingly, even if the Commission eliminates the personal use restriction for Wideband Consumer Signal Boosters as proposed, enterprise users still would be unable to operate a Wideband booster across multiple providers' spectrum unless they subscribed to each provider. The Commission therefore considers whether and how to permit non-subscribers to operate Provider-Specific or Wideband Consumer Signal Boosters and proposes a means for non-subscribers to register with and receive consent from providers to which they do not subscribe, while ensuring that providers maintain control over their networks.

20. Section 301 of the Communications Act requires a valid FCC license to operate a radio frequency transmitting device, such as a signal booster. The Commission in the Report and Order noted that wireless providers must retain sufficient control over Consumer Signal Boosters to avoid violating Section 310(d) of the Act and thus authorized Consumer Signal Boosters under wireless providers' blanket licenses and required that signal booster operators be subscribers who must obtain the consent of their wireless provider and register their Consumer Signal Booster with that provider. By all accounts, this framework has worked as intended, and wireless providers have retained required control of their operations, with interference to wireless networks being almost nonexistent.

21. The Commission proposes to extend this paradigm so that a non-subscriber may operate a Consumer Signal Booster under the provider's blanket license subject to an arrangement with the provider. This arrangement would serve as a substitute for the subscriber relationship while retaining the consent and registration components of its framework. Similar to a subscriber agreement, such an

arrangement could include any appropriate rights, restrictions, and obligations the provider believes it must impose on the non-subscriber. In this way, wireless providers would continue to maintain control over their licensed spectrum in compliance with section 310(d) while enterprise users and individuals would have the flexibility to operate boosters across wireless networks, including taking advantage of any alternative approaches to facilitating the operation of Consumer Signal Boosters by non-subscribers.

22. The Commission also proposes that non-subscriber registrants would have to agree to and accept certain terms established by the wireless provider on whose spectrum the Consumer Signal Booster would operate. The details of the arrangement between the wireless provider and a non-subscriber registrant generally would be left to the wireless providers to implement, but at minimum the Commission proposes that any such arrangement must require that the registrant:

- Prior to operation, obtain the consent of the licensee for any network operating in the range of the signal booster;
- Prior to operation, register the signal booster with the licensee for any network on which the booster will be operated;
- Operate the Consumer Signal Booster only with approved antennas, cables, and/or coupling devices as specified by the manufacturer of the booster;
- Operate the signal booster only on frequencies used for the provision of subscriber-based services, as specified in section 20.21(e)(3);
- Because operation of Consumer Signal Boosters is on a secondary, non-interference basis to primary services licensed for the frequency bands on which they transmit, upon request of an FCC representative or a licensee experiencing harmful interference,
  - Cooperate in determining the source of the interference, and
  - If necessary, deactivate the signal booster immediately, or as soon as practicable, if immediate deactivation is not possible;
- Use a signal booster that meets the Network Protection Standard in Section 20.21(e);
- Use a signal booster that is appropriately labeled as required by Section 20.21(f); and

- Not deactivate any features of the signal booster that are designed to prevent harmful interference to wireless networks. These features must be enabled and operating at all times that the signal booster is in use.

23. The Commission seeks comment on these proposed terms. Are they adequate to achieve its goals? More specifically, is the requirement that operators receive consent of all providers “operating in the range of the signal booster” feasible? What costs would this requirement entail for the purchasers/operators of Consumer Signal Boosters? The Commission seeks comment on whether wireless providers may charge a registration fee to non-subscribers. Should it set up a system for registrants to determine which providers are in range of their signal booster? Should the providers themselves set up such a system? Should the Commission include any additional protections for consumers? How could these arrangements be enforced against a non-subscriber? Are there other ways in which the Commission can ease the registration and consent requirements for small businesses? If a commenter suggests alternative or additional terms, or a different approach to the establishment of an arrangement between a wireless provider and a non-subscriber Consumer Signal Booster registrant, its comments should explain the purpose and feasibility of such different or additional terms, and should also address how any arrangement meets the requirements of sections 301 and 310(d) of the Communications Act.

24. As with the current subscriber framework, the Commission intends that this registration process (which also would include the establishment of the relationship between the wireless provider and the non-subscriber Consumer Signal Booster operator) would constitute the provider’s consent to the non-subscriber registrant’s operation of the signal booster. To be clear, the signal booster’s operator would need to register with each and every provider on whose network the signal booster might operate. The registered operator would remain responsible for the signal booster as defined by the Commission’s rules, while other users could utilize the signal booster without registering. If an individual chose to operate a booster for his personal use on his subscribing provider’s network, however, the individual simply would follow the current framework and register only with that provider. The Commission seeks comment on

this proposed framework. Does it achieve the goals of expanding access to Consumer Signal Boosters while adequately providing licensees with control over their networks? Is there a better way to achieve this goal?

25. If the Commission allows individuals and enterprises to register with and seek consent from wireless providers other than those to which they subscribe, it observes it also must alter the required advisory language for Consumer Signal Boosters, specifically the statement that “BEFORE USE, you MUST REGISTER THIS DEVICE with *your* wireless provider and have *your* provider’s consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact *your* provider.” The Commission proposes to alter this language to make clear to purchasers that any Consumer Signal Booster must be registered with one or more wireless providers and that it may not be used with any provider in the absence of their prior consent. The Commission also proposes to include language directing signal booster purchasers/operators to an FCC webpage that will guide them to determine with which provider(s) they must register and from whom they must receive consent before initiating any operation of the signal booster. The Commission preliminarily anticipates that the FCC webpage would include tools so that a Consumer Signal Booster purchaser/operator could determine whether it needed to register with only one, or with multiple providers and to assist the purchaser/operator in identifying which providers might be within range of the signal booster when operated. The Commission seeks comment on this proposal. Is it likely to promote compliance with its requirements for Consumer Signal Boosters or might it instead lead to purchasers, particularly individuals, ignoring the requirements? Is there a simpler way to include the required information in an advisory that accompanies the Consumer Signal Boosters? Is there a more efficient way for signal booster purchasers/operators to obtain this information?

26. The Commission also considers what action it should take with respect to Mobile Consumer Signal Boosters if it moves forward with its overall proposal. While Mobile Consumer Signal Boosters generally are used by consumers for their personal use and only on their own provider’s mobile network (e.g., in their personal car), other non-personal uses across multiple wireless providers’ spectrum are possible as well. For example, commercial bus or train lines that travel across multiple markets may

choose to deploy a mobile booster for their passengers' use. The Commission proposes that such enterprises would be required to register their Mobile Consumer Signal Boosters with all providers within range of the signal booster, even though the number of such wireless providers may well be larger than those for a fixed signal booster, as the bus or train would be moving through multiple markets. Would imposing this registration requirement for mobile signal boosters be burdensome on entities like bus and train lines, or would it simply be considered a requirement of doing business? Is there an alternative way to address the need for registration of mobile signal boosters that would maintain the integrity of its registration and consent requirement?

27. Finally, the Commission seeks comment on whether either or both of its proposals above (to eliminate the personal use restriction for Wideband Consumer Signal Boosters and to allow non-subscribers to operate Consumer Signal Boosters on the networks of all wireless providers) require any additional rule changes. For example, would either proposal require any technical rule changes? Are enterprise users likely to place their Consumer Signal Boosters in locations that are more prone to causing interference, for example, outdoors or on top of tall buildings? Should the Commission consider placing restrictions on where Consumer Signal Boosters may be operated? Is there a technical reason to limit how many Consumer Signal Boosters one operator may deploy? Sprint, for example, points out that using multiple Consumer Signal Boosters to cover a large industrial, retail, or other facility is not ideal, "as the performance of the boosters is not optimized for such deployments." Are there any other considerations?

## **II. PROCEDURAL MATTERS**

### **A. Paperwork Reduction Act Analysis**

28. The Second Further Notice contains proposed modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-

198, see 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

29. The Initial Regulatory Flexibility Analysis (IRFA) is in Appendix D of the Second Further Notice.

#### **B. Initial Regulatory Flexibility Analysis**

30. As required by the RFA, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the rule revisions proposed in the Second Further Notice. The analysis is found in Appendix D of the Second Further Notice. The Commission requests written public comment on the analysis. Comments must be filed in accordance with the same deadlines as comments filed in response to the Second Further Notice, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the Second Further Notice, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the RFAs.

#### **C. Ex Parte Presentations**

31. This proceeding shall continue to be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of

summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the Commission's Electronic Comment Filing System (ECFS) available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

32. People with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

### **III. ORDERING CLAUSES**

33. Accordingly, IT IS ORDERED, pursuant to Sections 1, 4(i), 4(j), 7, 301, 302, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 157, 301, 302, and 303, that the Second Further Notice of Proposed Rulemaking in WT Docket No. 10-4 IS ADOPTED.

34. IT IS FURTHER ORDERED that, pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on the Second Further Notice of Proposed Rulemaking on or before 30 days after publication in the *Federal Register* and reply comments on or before 60 days after publication in the *Federal Register*.

35. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of the Second Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

#### **List of Subjects in 47 CFR Part 20**

Communications common carriers, Communications equipment, Radio

**FEDERAL COMMUNICATIONS COMMISSION.**

Katura Jackson,

Federal Register Liaison.

Office of the Secretary.



## Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 20 as follows:

### **PART 20—COMMERCIAL MOBILE RADIO SERVICES**

1. The authority citation for Part 20 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 152(a) 154(i), 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 610, 615, 615a, 615b, 615c, unless otherwise noted.

2. Amend § 20.21 by revising paragraphs (a), (f), (g), and (h) to read as follows:

#### **§ 20.21 Signal boosters.**

(a) *Operation of Consumer Signal Boosters.* -- (1) *For personal use by a subscriber.* A subscriber in good standing of a commercial mobile radio service system may operate a Consumer Signal Booster under the authorization held by the licensee providing service to the subscriber, provided that the subscriber complies with paragraphs (a)(1)(i) through (a)(1)(vi) of this section. Failure to comply with all applicable rules in this section and all applicable technical rules for the frequency band(s) of operation voids the authority to operate the Consumer Signal Booster.

(i) Prior to operation, the subscriber obtains the consent of the licensee providing service to the subscriber;

(ii) Prior to operation, the subscriber registers the Consumer Signal Booster with the licensee providing service to the subscriber;

(iii) The subscriber only operates the Consumer Signal Booster with approved antennas, cables, and/or coupling devices as specified by the manufacturer of the Consumer Signal Booster;

(iv) The subscriber operates the Consumer Signal Booster on frequencies used for the provision of subscriber-based services as specified by paragraph (e)(3) of this section;

(v) The Consumer Signal Booster complies with paragraphs (e), (f), (g), and (h) of this section and § 2.907 of this chapter; and

(vi) The subscriber may not deactivate any features of the Consumer Signal Booster that are designed to prevent harmful interference to wireless networks. These features must be enabled and operating at all

times the signal booster is in use.

(2) *For non-personal use.* An individual or non-individual may operate a Consumer Signal Booster under the authorization held by the licensee(s) of the spectrum on which the Consumer Signal Booster operates, provided that the operator complies with paragraphs (a)(2)(i) through (a)(2)(vi) of this section. Failure to comply with all applicable rules in this section and all applicable technical rules for the frequency band(s) of operation voids the authority to operate the Consumer Signal Booster.

(i) Prior to operation, the operator obtains the consent of the licensee(s) of the spectrum on which the Consumer Signal Booster operates;

(ii) Prior to operation, the operator registers the Consumer Signal Booster with the licensee(s) of the spectrum on which the Consumer Signal Booster operates;

(iii) The operator only operates the Consumer Signal Booster with approved antennas, cables, and/or coupling devices as specified by the manufacturer of the Consumer Signal Booster;

(iv) The operator operates the Consumer Signal Booster on frequencies used for the provision of subscriber-based services as specified by paragraph (e)(3) of this section;

(v) The Consumer Signal Booster complies with paragraphs (e), (f), (g), and (h) of this section and § 2.907 of this chapter; and

(vi) The operator may not deactivate any features of the Consumer Signal Booster that are designed to prevent harmful interference to wireless networks. These features must be enabled and operating at all times the signal booster is in use.

\* \* \* \* \*

(f) *Signal Booster Labeling Requirements.*

(1) Consumer Signal Boosters.

(i) Consumer Signal Booster manufacturers, distributors, and retailers must ensure that all signal boosters include the following advisory:

This is a CONSUMER device.

BEFORE USE, you MUST REGISTER THIS DEVICE with the appropriate wireless provider(s) and have that provider's consent. Most wireless providers consent to the use of signal boosters. Some

providers may not consent to the use of this device on their network. Please visit [www.fcc.gov/X](http://www.fcc.gov/X) to determine the provider(s) with which you must register and from which you must receive consent.

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

**WARNING.** E911 location information may not be provided or may be inaccurate for calls served by using this device.

(ii) The label for Consumer Signal Boosters certified for fixed indoor operation also must include the following language:

This device may be operated **ONLY** in a fixed location for in-building use.

(iii) These advisories must be included:

(A) In on-line, point-of-sale marketing materials,

(B) In any owner's manual and installation instructions (whether in print or on-line),

(C) On the outside packaging of the device, and

(D) On a label affixed to the device.

(iv) In lieu of the requirements of paragraphs (f)(1)(i), and (f)(1)(iii)(C and (D) of this section, vehicle manufacturers, vehicle distributors, and vehicle retailers of vehicles with embedded Consumer Signal Boosters must use the following alternative advisory in any materials provided at vehicle delivery and when the consumer registers the vehicle with the vehicle manufacturer:

This vehicle contains a **CONSUMER SIGNAL BOOSTER** device.

**BEFORE USE**, you **MUST REGISTER THIS SIGNAL BOOSTER DEVICE** with the appropriate wireless provider(s) and have that provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. Please visit [www.fcc.gov/X](http://www.fcc.gov/X) to determine with which provider(s) you must register and from which you must receive consent.

If a wireless provider does not consent to the use of this device on its network, or if you are

directed to cease operating the device by the FCC or a licensed wireless service provider, you MUST *[manufacturer, distributor, and/or retailer insert instruction to consumer]*.

WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

(v) A Consumer Signal Booster label may contain an acknowledgement that particular provider(s) have given their consent for all consumers to use the device. Such an acknowledgement shall be inserted prior to, “Some providers may not consent to the use of this device on their network.” The remaining language of the advisory shall remain the same.

(2) *Industrial Signal Boosters.* (i) Industrial Signal Booster manufacturers, distributors, and retailers must ensure that all signal boosters, include the following advisory:

WARNING. This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC Licensee to operate this device. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of \$100,000 for each continuing violation.

(g) *Marketing and Sale of Signal Boosters.* Except as provided in § 2.803 of this chapter, no person, manufacturer, distributor, or retailer may market (as defined in § 2.803 of this chapter) any Consumer Signal Booster that does not comply with the requirements of this section to any person in the United States or to any person intending to operate the Consumer Signal Booster within the United States.

(h) *Registration.* (1) Each licensee consenting to the operation of a Consumer Signal Booster must establish a free registration mechanism for subscribers and register all, including non-subscriber, Consumer Signal Boosters to which it consents. A licensee must establish a registration mechanism within 90 days of consenting to the operation of a Consumer Signal Booster. At a minimum, a licensee must collect:

- (i) The name of the Consumer Signal Booster owner and/or operator, if different individuals;
- (ii) The make, model, and serial number of the device;
- (iii) The location of the device; and
- (iv) The date of initial operation. Licensee consent is voluntary and may be withdrawn at the licensee’s

discretion.

(2) In addition, for any non-subscriber registration, at a minimum, the registrant must:

- (i) Prior to operation, obtain the consent of the licensee for any network operating in the range of the signal booster;
- (ii) Prior to operation, register the signal booster with the licensee for any network on which the booster will be operated;
- (iii) Operate the Consumer Signal Booster only with approved antennas, cables, and/or coupling devices as specified by the manufacturer of the booster;
- (iv) Operate the signal booster only on frequencies used for the provision of subscriber-based services, as specified by paragraph (e)(3) of this section;
- (v) Because operation of Consumer Signal Boosters is on a secondary, non-interference basis to primary services licensed for the frequency bands on which they transmit, upon request of an FCC representative or a licensee experiencing harmful interference,
  - (A) Cooperate in determining the source of the interference, and
  - (B) If necessary, deactivate the signal booster immediately, or as soon as practicable, if immediate deactivation is not possible;
- (vi) Use a signal booster that meets the Network Protection Standard as required by paragraph (e) of this section;
- (vii) Use a signal booster that is appropriately labeled as required by paragraph (f) of this section; and
- (viii) Not deactivate any features of the signal booster that are designed to prevent harmful interference to wireless networks. These features must be enabled and operating at all times the signal booster is in use.

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